



# ANCHORAGE AMATEUR RADIO CLUB



PRESIDENT FRED WEGMER  
KL7HFM 274-3464  
CLUB PHONE: 345-0719

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JULY 1992 JULY 1992 JULY 1992

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General Meeting July 3rd 7 PM Carr-Gottstein Bldg APU

NOTE:: NEW MEETING PLACE ! ! ! The New Meeting Place is on the Alaska Pacific Campus in the Carr-Gottstein Building. When you enter the campus the building is the second one on the left side. There is parking to the right of the building or in a parking lot on the right hand side of the road going in. DO NOT park in the street. It will cost you a TOWING Fee. When you enter the building go to the left to Room 102. We will have our coffee etc in the Lobby, NOT in the room!!

Alaska Pacific University is located East of the intersection of University Dr and Bragaw. From TUDOR and BRAGAW go north to University Dr and turn right onto campus. From NORTHERN LIGHTS turn south on UAA Drive to signal, then left to Bragaw. Continue East on campus. From SEWARD HWY, go East on 36th to campus, approx two miles. If lost try 146.94/34 and someone can help you!!

Board Meeting July 8th 7 PM Carr-Gottstein Bldg Rm 104

DON'T FORGET, NO PARKING ON THE STREET, USE THE PARKING LOTS.

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AARC July 92 / Pg 2

## Calendar 1991-1992

JULY 1992

GENERAL MTG 3rd  
BOARD MTG 8th  
PARKA MTG 25th

August

General Mtg 7th  
Board Mtg 12th  
PARKA Mtg 29th  
Bush Net Picnic

September

General Mtg 4th  
Board Mtg 9th  
Flea Market/Hamfest 26/27  
PARKA Mtg ???

October

General Mtg 2nd  
Board Mtg 14th  
PARKA Mtg 31st

November

General Mtg 6th  
Board Mtg 11th  
PARKA Mtg 28th

December

Club Christmas Party 4th  
Board Mtg 9th  
PARKA Mtg 28th

January 1993

General Mtg 8th  
Board Mtg 13th  
PARKA Mtg 26th

February

General Mtg 1st  
Board Mtg 13th  
Fur Rondy - Grand Prix 16th  
- Dog Races 22/23/24  
Iditarod Sled Dog Races  
PARKA Mtg 23rd

March

General Mtg 1st  
Board Mtg 13th  
PARKA Mtg 23rd

April

General Mtg 5th  
Board Mtg 10th  
PARKA Mtg 27th

May

General Mtg 3rd  
Board Mtg 8th  
Walk For Hope  
PARKA Mtg 22nd

June

General Mtg Election 4th  
Board Mtg New/Old 9th  
Field Day 26/27  
PARKA Mtg 26th  
Motley Picnic (Byers Lake)

If there are any Additions or Corrections to the Calendar,  
please call NL7DK at 333-4693. Thanks!

AARC General Meeting 6-5-92

The general meeting for the Anchorage Amateur Radio Club was opened by President Fred Wegmer KL7HFM at 7:00 PM. Introductions were made.

Mr. Bob Stewart, Emergency Office Coordinator for the City of Anchorage, was present. He gave a brief description of his job and his expectations from amateur radio operators in both emergency drills and in true emergency operations. Maybe we can persuade Mr. Stewart to return and give a more detailed report on both his job and his expectations from hams.

Rick KL7YF supplied a CQ Field Day video tape, which was put out by Gordon West, and showed how Field Day operations are put together, and the proper Field Day operations.

The June meeting is traditionally election meeting. The following new officers were elected:

President: Fred Wegmer KL7HFM  
Vice Pres: Joan Beller AL7NK  
Secretary: Lil Marvin NL7DL (by the skin of her teeth)  
Act. Mgr. : Richard Mote AL7MO  
Treasurer: Fielder Dowding KL7FHX  
3-Yr Board: Bill Capers AL7BB  
1-yr Board: John Antonuk AL7ID  
John Lawson NL7NC  
Mel Saunders WL7IHE  
Simon Carraway NL7VR  
Bob Baker, Sr. NL7UH  
Jerry Swanson AL7HS

Congratulations to all of you who won!!

Raffle prizes were awarded. Because there were no M&M's given away at this raffle, Lil went into the DT's and began chewing on anything that was brown in color, or that remotely resembled chocolate.

The eatin' after the meetin' was held at Elmer's as per usual. Lil pigged out as per usual, too!

(Honestly, this is) Respectfully Submitted,

A handwritten signature in cursive script that reads "Lil Marvin".

Lil Marvin NL7DL



The Anchorage Amateur Radio Club boardmeeting was opened at 7:00 PM by President Fred Wgmer KL7HFM. The following previous-year boardmembers attended: KL7HFM, KL7PHX, AL7NK, NL7DL, KL7YF, AL7BK, AL7BB, AL7IM, KL7HO, AL7ID. The following new boardmembers also attended: NL7VR, WL7IHE, AL7MO, NL7NC. Also present were the following clubmembers: WL7BF, KL7DJE, KL7HFQ, KL7I2Z.

Nate KL7DJE gave a brief report on the short history and current status of the 147.00/60 repeater. It is located at Bald Ridge, just north of Wasilla, and is up about 4200 feet. The radio is an MVP and is linked to UHF but needs a controller. Nate requests the following for the repeater:

1. funds for at least 2 chopper trips
2. reimbursement for expenses
3. UHF controller
4. equipment donations
5. wind charger

If you can help with any of the above, please contact Nate at 745-3128. Rick KL7YF donated an antenna for the repeater. The board voted to donate \$1000.00 towards the repeater.

The following deserve a great big thanks for their help with the 147.00/60 repeater: Nate KL7DJE, Frank KL7DOB, Larry, AL7LW, Tom NL7TZ, Earl WL7CDY, Wayne KL7HHO, Gene KL7GID, and Jack WL7AC.

Nate also reports that the 146.04/64 repeater may also be back up at Neklason Lake soon.

John NL7NC gave an updated report on the packet BBS system. He submitted the following requests:

1. 50% participation in the AHS Speed Backbone Project
2. 25-watt UHF radio
3. duplexer for #2
4. 40M, 50-watt HF radio (AL7BB suggested using the club station for this purpose)
5. MFJ 1270A TNC

Rick KL7YF suggested that NL7NC take a walk through his basement to see if he can find any of his wants there first. NL7NC suggested that, if needed, funding for the above be included in the 1993 operating budget. If any clubmember can donate any of the above to John, he can be reached at 337-2467.

Field Day is June 27 & 28, with setup being on Friday, June 26. Field Day location is on the corner of MacInnes and 36th, the same place as last year. If you would like to help with setup, and/or participate as an operator, please contact John AL7ID at 346-1022.

The Field Day potluck will be Saturday at 6:00 PM. If you can help with cooking, or supply a barbeque grill, please contact Lil NL7DL at 277-6741. You are asked to bring the following

novices	Hershey bars
all techs	M&M's
generals	Snickers bars
advanced	chocolate truffles
extra	See's Chocolates-----OOPS!!!!

AARC Boardmeeting Minutes 6-10-92 (con't)

You are REALLY asked to bring the following:

novices	vegetables
all techs	salads
generals	hot dish
advanced	bread, rolls, chips, dips, etc.
extras	desserts

Please remember that the new meeting place, beginning in July, will be at the Alaska Pacific University, in the new Carr-Gottstein Hall, second building on the left, in Room 102. Check the next newsletter for maps and further directions.

The boardmeeting was closed at about 8:30 PM. Having gone so long without chocolate, Lil had to be revived with a chocolate-filled oxygen mask.

(You won't believe it, but this is) Respectfully Submitted,

*Lil Marvin NL7DL*  
Lil Marvin NL7DL

### ELECTION RESULTS

The following are the new Officers for the AARC for the coming year:

President - Fred Wegmer KL7HFM

Vice-President - Joan Beller AL7NK

Activities Manager - Richard Mote AL7MO

Secretary - Lil Marvin NL7DL

Treasurer - Fielder Dowding KL7FHX

Three Year Board Member - Bill Capers AL7BB

1 Year Board Members - John Antonuk AL7ID

John Lawson NL7NC

Jerry Swanson AL7KS

Mel Saunders WL7IHE

Simon Carraway NL7VR

Bob Baker NL7UH

These are our New Elected Officers for the coming year so get behind them and give them lots of support with ideas and help when needed ! ! ! Congratulations to One and All ! !

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NOTICE

NOTICE

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Anchorage Amateur Radio Club Highway Clean - UP

July 11th 1992 9:00 AM Meet at the Potter Marsh Parking Lot

Boots and Gloves are recommended. State will furnish Vests and bags.

Lunch will be Somewhere afterwards. Call KL7IZZ at 345-1530 if

you have questions.



## KL7AA-7 Sysop Reports Packet Bulletin Board Growth To AARC Board

Growth was the message John, NL7NC sent the AARC Board of Directors at the June Board meeting. Packet messages originated or relayed by KL7AA-7 Bulletin Board Service (BBS) increased 600% in the first six months of 1992 over the first half of 1991, pushing the existing capacity of our VHF, UHF and HF ports.

During the first five months of this year, the KL7AA-7 BBS handled a total of 22,500 messages. On an average day, the BBS handled an average of 125 bulletins and messages.

The KL7AA-7 BBS now provides almost 100% of all bulletin traffic for Fairbanks and Juneau via the Iceworm network and backup HF.

The peak periods were Tuesday and Wednesday evenings between six and nine. This is exclusive of BBS to BBS forwarding. The slowest period was Thursday evening between six and nine; when the BBS was facing competition from the ARES net (and Bill Cosby!).

The growth in message handling was accompanied by a 28% increase in the number of active registered users between the first of the year and the end of May. Of the 167 active users, 52 are registered for landline access via telephone modem.

There are 16 personal mailboxes (PBBS's) receiving automatic forwarding service from KL7AA-7.

### Planning For Growth

NL7NC reported that as the number of users and the amount of traffic continues to grow, it is important to provide continued reliability and ease of access for the user community. When trying to plan for this growth, a number of factors need consideration. These factors include equipment availability, spectrum usage, emerging software and hardware technology, the needs of the users, emergency use and access speed to the BBS.

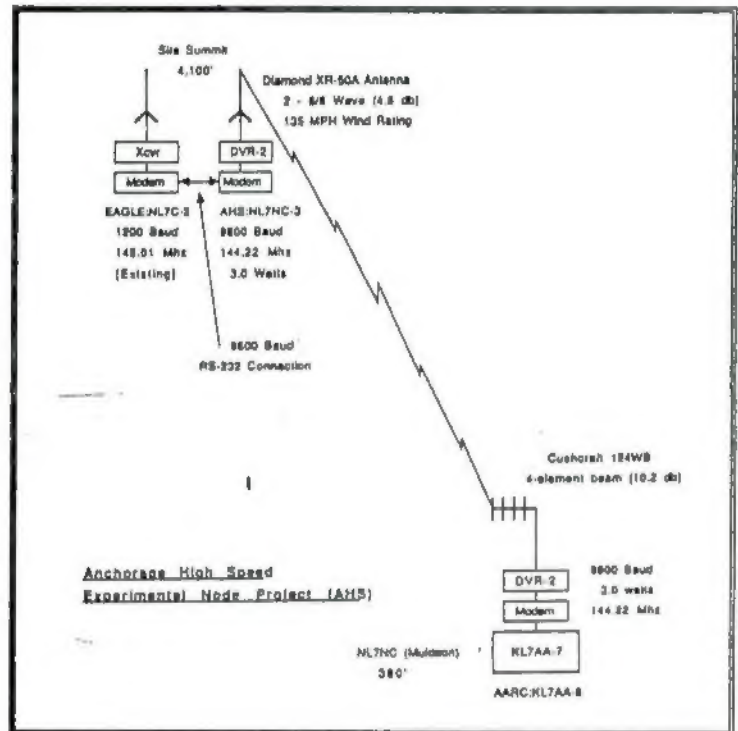
As the number of users continues to grow, 145.01 MHz is becoming more congested, by at least Anchorage's standards reported NL7NC. The channel congestion has been reduced somewhat by opening user ports on 445.05 MHz and 145.50 MHz through a cross-port gateway at KL7IKX.

The problems with 145.01 access to KL7AA-7 had been compounded by a "hole" in direct access coverage from NL7NC's Muldoon QTH next to the mountain.

Some users in the Eagle River and Chugiak area have been digipeating to connect with the BBS. This has been slowing down direct access to the BBS as well as multiplying data transmission on 145.01 MHz.

### Experimental 9600 Baud Backbone

To alleviate the 145.01 MHz channel congestion, NL7NC has been working on an experimental 9600 baud backbone intertie on 144.22 MHz to the EAGLE digipeater via Site Summit (see diagram). It is hoped that the system can be installed this summer as the NL7NC-3 (AHS) node. The node should help 145.01 MHz considerably.



AHS will be hardwired to the RS-232 port of EAGLE at 9600 baud. If successful, users will be able to connect with EAGLE, then to KL7AA-7 through the intertie. Routing will be automatically performed by *The Net* node software.

The AHS intertie should eliminate 50% of the data transmission on 145.01 MHz during indirect connects to the BBS. The 9600 baud intertie should be fast enough to be transparent to the users.

The 9600 baud port on 144.22 MHz will also be available for direct connections for anyone wishing to experiment with 9600 baud packet. The nodes will have full connectivity to the existing 1200 baud network throughout Alaska.

The 144.22 MHz frequency, which is in the SSB subband, was chosen during an intermod survey as a frequency that should be clear of interference.



Although both nodes are currently planned as low power installations, both can be upgraded in the future with more powerful amplifiers such as RF Concept 3-23s. Equipment planned for the experiment includes two used 9600 baud TNCs acquired from a club in the Lower 48 that switched to 56 Kilobaud for their backbone intertie and two Kantronics DVR2-2 9600 baud packet transceivers.

### *Interest Growing For UHF Packet*

John NL7NC, has received a number of inquiries from users regarding increased UHF coverage from KL7AA. The current UHF transceiver for the BBS is a 2.5 watt handheld radio on loan from KL7IKX. It has worked well with a beam antenna in point-to-point contact with the KL7IKX cross-port gateway.

However, the present UHF transceiver provides only very minimal coverage for general user access on UHF. Improving UHF coverage in the Anchorage Bowl will require increasing power to at least 25 watts and using an omnidirectional or cardioid gain antenna.

### *Place For Packet On HF*

On HF, NL7NC has provided a Kenwood TS-140S transceiver and a KAM TNC for backup coverage on 7108.5 KHz. He's tried other "junkier" radios as dedicated 40 meter port transceivers, but has had enough trouble and poor performance with them to give him quite a bit more gray hair, he says, than he needs to have at his age. Although he uses the TS-140S for other activities, he is reluctant to dedicate it for full time BBS use.

HF packet in Alaska and British Columbia is coordinated on the 7108.5 KHz frequency. Although NL7NC is the first person to say that "HF packet doesn't work," he says "it is useful for backup when the Iceworm network goes down, for access by stations in the Bush and is invaluable in emergencies."

The BBS stations in Juneau, Ketchikan and Fairbanks are all equipped with better HF packet capability than AARC is, and there are stations in McCarthy, Galena, Barrow and the Southeast who rely totally on HF for packet access.

With the TELINK landline and UO-22 satellite access, we are able to send packet traffic at will and we receive more bulletins on TELINK than a lot of BBSs in the Lower 48. Incoming traffic, however, most usually comes up the HF chain from British Columbia into KL7HFI in Juneau. Traffic is then routed to KL7AA over the Iceworm. As we have no control over how packet traffic is routed to us, this situation is unlikely to change in the near future.

KL7AA-7 is programmed to automatically re-route private traffic over HF channels if VHF paths are lost. By using HF to pick up private traffic when ICEWORM breaks down, delays of up to two weeks in traffic receipt are avoided.

## **Equipment Needed For AARC BBS**

AARC Sysop John NL7NC has need of an HF transceiver for dedicated full time use on 40 meters for the KL7AA-7 HF port. He's looking for a fairly stable and dependable rig with 50 - 100 watts output. It needs a decent TX/RX switching time to handle 300 baud packet. The transceiver can be either all solid state or solid state with tube finals. NL7NC can provide 12 volt power, antenna and tuner for the installation.

To boost UHF coverage of the BBS, he is also looking for a 25 watt or higher power UHF transceiver and a duplexer for UHF. This radio would replace the 2.5 watt Kenwood handheld currently on loan from KL7IKX.

If NL7NC can obtain both rigs, it will help to reduce congestion on the two meter packet frequencies and improve HF backup capabilities. ANYONE with a rig that they would like to donate should contact John Larson, NL7NC at 337-2467.

"I have quite frankly been very impressed with the improvement that FBB makes on HF over standard ASCII forwarding," says John NL7NC. By using the FBB program with compressed forwarding, private traffic can easily be forwarded over HF. The FBB software for packet was written by F6FBB.

### *Planning In 1988 Paid Off*

The BBS is operated on an American Microsystems 386-25 PC purchased by the AARC in 1988. The computer, "state of the art" and quite expensive in 1988, has served the needs of the BBS very well. Those responsible for the purchase should be thanked says NL7NC for thinking into the future at a time when 386 PCs were considered by most to be a luxury.

Our system operator believes that the computer can continue to serve the needs of the basic BBS system for several more years. The F6FBB software is extremely memory efficient and has enabled the number of active user ports to be doubled with no increase in RAM. The computer is equipped with 2 MB (megabyte) of RAM, a 156 MB IDE hard drive, three floppy drives, tape backup drive and a VGA monitor.

The AARC is currently operating with Version 5.14B of the F6FBB BBS software. It has proven to be a very good software package, with wide user acceptance. It is quickly replacing other types nationwide. The KL7AA-8 (AARC) node is operated from the same computer using G8BPQ node software Version 4.05. This software also serves as the port driver for KL7AA-7.



John says that we may convert from MS-DOS 4.01 to DR. DOS 6.0 if he "can get up the nerve to try it!" The system is also currently using QEMM 6.0. Several hundred user files are available for downloading from KL7AA-7. A total of 58 user directories are available.

NL7NC recommended that as long as the current software is used, that the computer be maintained in its present configuration with no further hardware enhancements. With the available software, we have just about reached the limit of the capabilities of the MS-DOS 386 operating environment.

Multitasking would be required if we wanted to add CD-ROM database storage for programs and HAMCALL. It would also be required for improving BBS file server capability. At the present time, there is insufficient RAM available on the PC to enable multi-tasking.

Past experience has shown that multi-tasking dramatically reduces the speed of the system and increases the probability of interrupt errors and system crashes. This is particularly a problem with communications-intensive applications such as a packet BBS.

The BBS is using an Icom IC-28A and an Alinco DR-1200 Dataradio provided by the AARC. Doug, KL7IKX has lent a Kenwood UHF handheld for the link to the cross-port gateway and NL7NC makes his TS-140S available for use on HF when needed as a backup. NL7NC has also purchased a Kantronics DVR2-2 for use on the 9600 baud intertie.

Various TNCs are used for the four active user ports on KL7AA-7. AARC owned equipment consists of two DRSI Type II internal card TNCs, each with two 1200 baud AFSK ports. NL7NC is using his Kantronics KAM for backup HF service and he has obtained an MFJ 1270B with 9600 baud capability for future 9600 baud service, if the intertie experiment works.

A US Robotics HST telephone modem is used on KL7AA-7. The modem has 9600 baud capability with other HST modems and 2400 baud with all other modem types.

The AARC has provided a can-type duplexer for dual frequency VHF service from a single antenna and a five element UHF beam for the link to the cross-port gateway. John is using his own Diamond XR500 omnidirectional two meter antenna for the BBS.

Two-hour uninterrupted power and battery power for the computer is provided by a Tripp Lite 300 watt UPS unit with an 80 amp hour battery supplied by NL7NC. He also has a 20 amp power supply and another deep-cycle marine battery for operating the transceivers.

John NL7NC said in summary that KL7AA-7 has been able to meet the demands of increased usage and will continue to do so in the future. The AARC has made a wise investment in packet radio - one which will continue to provide a high degree of service and reliability for the Amateur community.

## July Program

On tap for the July Program will be AARC Field Day Captain John AL7ID, out-going Vice President and Incoming Board Member, to tell us about what really did happen on Field Day this year. Captain John will cover Field Day from the planning stages through the setup, the picnic and the Sunday Morning cleanup.

Also on tap for July and in keeping with the theme of emergency radio operations, Lili NL7DL, outgoing (and incoming) Secretary and the Anchorage ARES Emergency Coordinator, will speak to us about the Amateur Radio Emergency Service system.

And we will have an encore presentation from Rob AL7KK, discussing the use of Emergency Locator Beacons for recovering missing aircraft.

## NL7UH "Grabs" Alinco Door Prize!

Bob Baker, NL7UH won the Alinco Two Meter FM Mobile transceiver, the "Jewel" of the June Raffle by use of "positive suggestion". When caught testing the rig only minutes after the close of the meeting, the following exchange was heard.

"NL7UH testing, how does this rig sound?" "Stolen." Obviously from one of the disappointed who watched as NL7UH walked off with the top prize from the record setting door prize raffle.

Outgoing Activities Manager Arlene KL7HO and her able assistant Harley KL7IZZ, report that the raffle generated more than enough funds to pay for another radio as a raffle prize later in the year.

Richard AL7MO, the incoming Activities Manager, reports that the raffle and coffee fund proceeds entrusted to him were in the mid-three figures due to Arlene and Harley's success with the raffles this past year.

AL7MO will be recommending to the Board in July that a checking account be established for the monthly raffle funds. He is also interested in your suggestions for future raffle prizes.

*AL7MO also reports that he will need assistance in the future with brewing coffee for the meetings. As a former South Texan, he was raised on (ICED) TEA and doesn't know anything about how to make coffee the way the club likes it.*



THANKS-

The 22 nd annual Walk for Hope is now history. This year the weather cool, but beautiful. There were about 3300 walkers who started and the majority finished. The walk went smoothly and, except for the usual blisters, sore muscles and tired feet, there were no emergencies. The pick up and delivery service went smooth but, as usual, just when a bus would leave, people would get the idea and want to drop out. I have to work on that one. Many folks decided to start late so even with plenty of busses early, there was a near riot when not all the people could get on one bus.

There are many people to thank, so here goes. If I miss anyone I'm sorry.

First, thanks to NL7DL and AL7ID for providing our link to headquarters. Lil had additional work because of problems with the REACT repeater. Thanks to John for volunteering at the last minute.

Second, thanks to KL7IMD for riding shotgun and providing our liaison communications with the first aid folks. He and Chuck Van Ormer probably put more miles in than the walkers making sure there are no medical emergencies (nothing major this year).

Third, thanks to KL7VC, NL7DD, KL7HO, KL7ZH, W4IGM, KL7GM, NL7AV, KL7JIM, NL7UH, AL7FS, NL7QI and NL7YM for providing communications at each check station.

Fourth, thanks to KL7IZZ, AL7IM, KL7HM, KL7VC, NL7DD, NL7JY, N7MGT and NL7DK, who provided communicators for the pick up and delivery service.

Thanks to NL7DK who is in training to take over the transportation end of the walk managing the bus drivers. He is now fully trained. Next year I may train him for net control.

Finally, to all the folks on the 34/94 repeater who stood by and put up with the traffic all day.

Well that about wraps up the Walk for Hope for another year. I would like to take this opportunity to personally thank all the people who helped. It is especially gratifying for me to have people who worked say "see you next year" as they are leaving. Some have even staked out a specific checkpoint and have started new friendships with other volunteers. This is my 18th year and it gets better and better. See you next year.

73es

Bill, KL7ITI

### **AARC/SCOUT-O-RAMA 1992 A SUCCESS**

Amateur radio was represented at the 1992 Scout-O-Rama event put on by the Boy Scouts of America. This was the second year that the AARC participated in the event with Troop 104. The event was held at Dimond High School this year and the estimated attendance was 12,000. Last year's event was held at West High School.

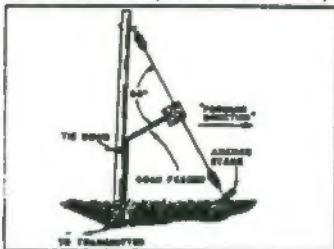
Though no exact count was made, an estimated 50+ young people talked on HF (14.290) to BOB BAKER, JR. (NL7UQ) operating out of the University of Arizona club station, WA7IYG, in Tucson. There were at least 50 more scouts and scouters that watched and participated in the three packet stations operating this year and still others that utilized the 2 m voice rig.

Special thanks is due those hams participating in this year's event: JOHN ANTONUK (AL7ID), BRUCE BENSON (NL7NW), DOUG DICKINSON (KL7IKX), LIL MARVIN (NL7DL), BARBARA MEYER (NL7SU), HARVEY ROKUS (NL7DK), and PAUL SPATZEK (WL7BF). We also thank RICK MARVIN (KL7YF) for his efforts in furnishing antennas, power cords, checking out the Club's generator, and providing many helpful hints. Submitted: Bob Baker, NL7UH



**STEVE'S CORNER (NH:SG)****Sloping dipole**

Antennas, here in Hawaii, sometimes need to be inconspicuous, and even hidden from the neighbors. Yet no one wants to sacrifice performance. The sloping dipole can be supported by existing structures. A tree, flag pole, or even the side of the house work fine with this antenna, and it is cheap to build. A dipole, you will recall, is



a half-wavelength in length. On the lower HF bands over poor to average earth, such as we have here in Hawaii, maximum radiation is off the sides and in the

“forward direction” indicated in the drawing, if a nonconductive support is used. A metal support will alter this pattern by acting as a parasitic element, depending on its electrical height. The sloping dipole can be useful for DX work on the lower HF bands because of its low angle of radiation. Excellent results can be had when the ground end of the antenna is only a few feet above the earth. When the antenna is supported with a nonconducting mast over poor to average earth, the radiation pattern tends to be cardioid shaped, but without a sharp null at the back. Maximum response is off the sides and in the “forward direction” as indicated in the drawing above. The front-to-back ratio of the sloper depends on the frequency and the conductivity of the earth, as well as the amount of slope and the vertical elevation angle of concern. Surprisingly, the sloping dipole becomes an omnidirectional radiator over a perfectly conducting earth!

If you use a metal support (a flag pole, etc) it will alter the shape of the radiation pattern by acting as a parasitic element. Best results as a reflector seem to be obtained when the support is grounded and is approximately a quarter wave in physical height. Some amateurs install four slopers for a given amateur band, spaced equidistantly around the support. A feedline switching system is used to obtain directivity in the chosen direction.

The sloper can be used as an all-band radiator by using tuned open wire feedline. The dipole is cut to a half wavelength for the lowest desired band. It is operated on its harmonics when used for the other chosen bands. A typical antenna of

this type might be utilized from 80 thru 10 meters. I use this type at my home QTH, and works fine.

Open wire feedlines are not as inconspicuous as coax, however. The sloper will have a feed-point impedance between 50 & 75Ω, so standard coax cable is suitable for this installation. The smaller types of cable (RG-58 & RG-59) is fine for power levels up to a few hundred watts, and is less conspicuous and more easily hidden from nosy neighbors. For higher power stations, (RG-8 or RG-11) should be used. Coax cables should be connected at the center of the antenna. A plastic insulating block is used as central reinforcement for the cable and the sloper's wires. The coax shield braid is connected to one leg of the dipole and the center conductor is soldered to the remaining leg. The exposed end of the cable should be sealed against moisture and salt spray, to prevent degradation of the transmission line.

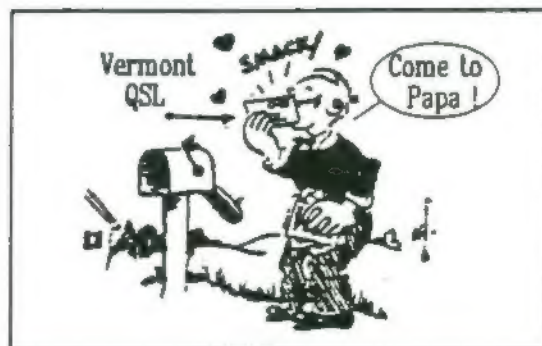
The actual length of the radiators will not exactly equal the length of a half wavelength dipole in free space, due to several factors. The following formula is quite accurate for wire antennas for frequencies up to 30 MHz.

Length of half wave antenna (ft) =

$$\frac{492 \times 0.95}{f \text{ (MHz)}} = \frac{468}{f \text{ (MHz)}}$$

Example: A half wave sloper for 7150 kHz (7.15 MHz) is  $468 / 7.15 = 65.45$  ft. or 65 ft 5 in. In practice, it is often necessary after cutting the antenna to the computed length to do some experimental “pruning” of the wire, lengthening or shortening it in increments to obtain a low SWR.

The sloping half wavelength dipole is a great DX performer, is easily constructed, and is suitable in applications where “invisibility” is a must.





For Sale. Trade. Misc. Etc

For Sale -

ICOM O2AI 2 meter Hand held w/ leather case and original accessories; ICOM HS-10SB headset-boom mike; ICOM CM-1 cigarette lighter Jack/power cable; 5/8 wave metal telescoping 2 meter antenna. Call Ed Maher-NL7UP @ 243-4348

For Sale -

ROHN 48' HDBX Sel supporting Tower. Cushcraft A-3 Tri-Band Antenna. Alliance HD-73 Rotor. All for \$600 Contact Don AL7KD @ 907 345-5113

### FOR SALE:

Qty	Description	Condition	Price
1	A-3 Cushcraft 3 Band Antenna, 10/15/20 meters	Excellent	\$195
2	40' free standing, crank-up with heavy duty fold-over "rotor base"	Excellent	\$600 ea
1	IC-502, Icom 6 Meter SSB/CW Xcyr	Excellent	\$135
2	IC-202, Icom 2 Meter SSB/CW Xcyr	Excellent	\$95 ea
1	HR-2510 Uniden 10 Meter SSB/CW/FM/AM	Excellent	\$135
1	TYRO 14' dish on Polar Mount	Good	\$290
1	2 Meter, 4 Yagi, 16 element, cross polarized Array with dual phasing harness. Use for satellite or moonbounce, hears EME signals (W1JR design built by KL7WE)	Good	\$175

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Commodore 64 with 2 disk drive and Monitor. CHEAP  
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HOW' THIS FOR  
PACKET RADIO ? ?

Copied from  
Boone County  
Amateur Radio  
Club Newsletter  
Lebanon, IN

Date: 12 May 92 23:55  
Message-ID: <19833@KL7AA>  
From: W9WJ@KL7AA  
To: KA9WJ@WJ9U  
Subject: snowy day on the Mt.  
Paths: WJ9U!KD9LP!WV9D!NU9H!KL7AA

first if the sysop or another has read this message if you would please see that this message is sent both to  
wb9tlh @ k9lu.in.usa and  
ka9wdj @ wj9u.in.usa  
I would greatly appreciate it..thanks.  
Hello Indiana Hoosiers!

greetings from snowy Mt McKinley. We had several feet of snow dumped on us last night and right now it is a balmy 10 degrees. It is still snowing and we have to periodically dig out around the tents so that we don't suffocate. The tents are located in pits a foot deep in the snow so that the winds blow over us. so far winds have only gusts to 40mph so the storm has not been as severe as expected. Everyone is kind of stir crazy as our time left for an assault on the peak is slipping away. Many rescue operations have had to take place the last several days but we are all hail and hearty. As long as we don't succumb to greasy hair or severe body odor we will be fine! We are right at the base of the headwall poised for a push up but right now you can't even see the Mt. we continue our scientific measurements and the one good result of this forced stay at 14000 ft is that we are all acclimating and there are almost no remaining signs of sea. We spend 4-6 hours a day heating snow to obtain water...yes we watch out for colored snow! We are getting ready to do skinfold measures. We get as many people in one tent as possible to try and get it warm enough for the subject!! Quite a sight!  
We think of all of you our friends and family often. Thanks to the amateur radio operators in Alaska, Indiana and the ones serving as links in-between we feel a little less distance from all of you. As Benjamin Franklin said, "The does not dress for private company as for a public ball." Although these messages are passing through many hands I feel that they are all friends some of them we haven't met yet. Love and best wishes from here at chez 14000!  
...s. Jonathon don't forget to take out the trash on Wednesday..love dad

From: W9WJ@KL7AA  
To: KA9WJ@WJ9U  
Subject: Another storm  
Paths: WJ9U!KD9LP!WV9D!NU9H!KL7AA

as previously requested please see that this message is sent to both:  
wb9tlh @ k9lu.in.usa and  
ka9wdj @ wj9u.in.usa

greetings from Mt McKinley! No one on the Mt is above 14000 ft. Last night a high pressure front blew thru. Although this stopped the snowing temperatures last night fell to 26 below and winds gusts to 60 mph. At times it felt as if the Mt was trying to throw us off with one big shake. Right now the weather is beautiful but the morning was taken up with digging out and trying to dry things out. A new low pressure front is coming in and is expected to be even worse than the last storm, therefore noone is advancing on the summit. Weather service reports several more days of storms. Now we are rapidly running out of time. Lying around in tents for 3-4 more days is not appealing but we mustn't be foolish and make a push for the top if the conditions aren't right. Everyone is doing relatively well our health is good but the waiting takes every person's resolve. But fortunately we take turns bucking each other up and we continue with our daily chores of melting snow, dig digging snow and trying to get/keep snow out of the tents. Safe to say no one here wants a snowcone!  
Two days ago a climber fell coming down the headwall. His ascender was not hooked to his fixed rope and he fell 500 feet breaking his arm and lacerating his face. Two other brave climbers from the National Outdoor Leadership School assisted the injured climber and a courageous helicopter pilot briefly touched down on a 30 degree slope and evaded the climber out. That same day a french team of two men abandoned their female companion at 17200 ft after they had started down lower to their cache at 16200 and the storm hit. They came back to 14000 and the same two climbers from NOLS went up and brought her down in the middle of a whitout down a sheer ice slope. These guys are amazing they were running low on food so we have been giving them our extra.

Speaking of food Dave T. and Sam J. continue to eat at an astounding rate... about 5000-6000cal/day. David G. and I eat about half that amount so we are losing weight...not diet I recommend! The Denali diet!  
Time to go, as before we keep you all in our hearts and minds please think of us.  
...s. Jonathon, if I remember right t-ball has started. Keep you eyes on the ball and swing level...love dad



...it was just great!

11/7/87

William Maurer

Anchorage Amateur Radio Club  
Thanks for your thoughts and  
prayers during my recent operation  
and recuperation. Your good  
wishes were greatly appreciated.  
I am recovering quite nicely and  
feel up to my usual energy,  
Chocolate - loving self!  
Thanks again for your  
thoughts.

Thanks...

ANCHORAGE AMATEUR RADIO CLUB, INC.  
Post Office Box 101987  
Anchorage, Alaska 99510-1987

Address Correction Requested

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*[Handwritten scribble]*

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